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Review  
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## MONTANA WEATHER AND CROP SUMMARY

1959 Growing Season

April - September

October 22, 1959

U. S. DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

U. S. DEPARTMENT OF COMMERCE  
Weather Bureau

### Temperature

April temperatures were unseasonably warm the first week, but cold thereafter. It was unseasonably cold throughout May with minimums of freezing or lower observed as late as the final week. Cool weather continued the first week of June, then varied from warm to seasonal. June temperatures averaged 2 to 5 degrees warmer than long term means, the only month during the growing season averaging warmer than usual for all the State. The first few days of July were cool, but it was seasonably warm to cool with no extreme hot or cool periods throughout the rest of July and August. September was cool except for a brief warm spell from the 11th-13th. There was a general freeze over the western two-thirds on the 2nd, and over all the State on the 29th. The extreme temperatures for the growing season were 109 degrees on July 24 at Miles City, Moorhead 5 NE, and Hysham 19 SSE, and -5 degrees at Yellowstone Park Northeast Entrance on April 9.

### Precipitation

Precipitation was persistently deficient in the eastern third until September, except for a wetter than usual June in part of the Northeastern Division. Elsewhere, precipitation averaged close to the long term means April through June, but there were variations from excess to deficiency in local areas. Since records began in 1895, only July of 1917 had less rainfall than in July 1959. Dry weather continued through August, but the deficiencies were less. September moisture was generally above average except for some sections in the south central and central portions; greatest above normal departures occurred in the western sections. As a whole, the growing season was dry, critically so in parts of the eastern third of the State.

### Severe Storms

Heavy, wet snow the evening of April 15, and the morning of the 16th in the Harlowton, Red Lodge, Big Timber, Billings areas caused damage of about \$100,000 to telephone and power lines. There was little, if any, crop damage. Hail, including some wind damage, caused around \$1,200,000 damage to crops, buildings and other property during June. July and August were comparatively free of severe storms for the first time in several years. Four persons were killed and two were injured by lightning during the summer. Funnel clouds, that did not appear to touch ground, were observed at Helena, Miles City, and Sidney in June, near Dillon in July, and at Missoula in September, but there was no damage reported. Two small tornadoes, one near Scobey on June 20, and the other at Poplar on June 26th did some damage. There was some wind damage at Harlowton and Billings on September 8th.

### Crop Development

Soil moisture was adequate at the beginning of the 1959 growing season except for shortages in eastern and southern localities. Spring seeding was completed with only short delays resulting from wet weather. Germination and growth of crops and range grass development were retarded by cold temperatures during early spring. Because of slow grass growth, supplemental feeding of livestock continued longer than usual. Winter kill of winter wheat was very heavy in northeastern counties and in some central, and southern areas, most of which was reseeded to spring grains. Warmer weather in early May promoted crop and grass growth, however, dry, cold weather later in the month was not conducive to good vegetative growth. Beneficial rains fell late in May and during the first part of June and soil moisture supplies were then generally adequate. Warm weather in June accelerated the growth of range grasses and crops. Range feed was then adequate except for shortages in the north-east quarter of the State. The last two weeks in June were hot and dry and this condition continued throughout July. With the exception of the eastern and southern

(Over)



counties, subsoil moisture was sufficient to carry crops through the dry period with little deterioration. In the eastern and southern regions spring grains and other dry land crops were damaged and yields were reduced. Winter wheat was advanced sufficiently to escape heavy drought damage. The hot weather in July dried range grass, causing it to mature earlier than usual. Range feed shortages developed in August in some eastern and southern areas, and an earlier than usual movement of livestock from summer ranges was necessary. The dry weather was ideal for harvesting and making hay. Winter wheat seeding began during the first part of August with moisture supplies generally deficient. Some farmers delayed seeding until late September when general rains were received. The crop is now developing well and should be in good shape for winter. The rains also improved grazing by making grass more palatable and stimulating new growth in some sections.

6-Month Total Precipitation, April 1959 - Sept. 1959 (Inclusive)

<u>Station</u>	<u>Precipitation</u>	<u>6-Month Long-term mean</u>	<u>Station</u>	<u>Precipitation</u>	<u>6-Month Long-term mean</u>
<u>WESTERN DIVISION</u>					
Alberton	11.57		Ovando 1 SW	9.07	7.72
Big Fork 12 S	13.47		Ovando 7 WNW	8.10	
Creston	12.60		Philipsburg RS	9.77	9.76
Darby	7.28	7.48	Fleasant Valley	10.47	7.78
Drummond FAA AP	3.63	8.27*	Polebridge	13.26	
East Anaconda	9.02	8.21	Polson Airport	10.30	8.28
Elliston	10.86		Polson Kerr Dam	11.62	
Essex	17.87		Rexford RS	8.63	
Fortine 1 NNE	12.26	9.23	Saint Ignatius	12.74	9.12
Hamilton	6.96	6.65	Seeley Lake RS	10.82	
Haugan	13.48	8.49	Stevensville	9.64	6.46
Heron 2 NW	13.91	10.15	Sula	10.60	
Hungry Horse Dam	16.99		Summit	14.76	
Kalispell WBAS	10.44	8.65	Superior	10.51	7.22
Kalispell	9.55		Thompson Falls PH	11.47	7.92
Libby RS 1 NE	9.81	6.56	Trout Creek 2 W	11.28	8.81
Lonepine 1 WNW	6.37	5.46	West Glacier	13.68	11.77
Missoula 2 WNW	9.56	7.37	Yaak	13.21	
Missoula WBAS	9.17	7.09			
<u>SOUTHWESTERN DIVISION</u>					
Alder 17 S	11.85		Hebgen Dam	15.65	11.14
Belgrade FAA AP	9.20	10.51*	Jackson	10.33	
Boulder State School	8.10		Lakeview	12.16	
Bozeman Agr. College	12.59	10.98	Lima	7.59	7.79*
Bozeman 12 NE	20.56		Norris 3 ENE	10.90	
Butte FAA AP	8.03	8.68	Norris Madison PH	16.27	11.46
Dell 12 SSW	8.45		Twin Bridges	6.78	
Dillon FAA AP	8.51	7.04*	Virginia City	14.66	9.28
Dillon WICE	8.67	8.22	West Yellowstone	10.44	9.58
Divide 2 NW	8.51		Whitehall FAA AP	7.83	7.63*
Ennis	11.35	8.29	Wisdom	8.93	
Glen 4 N	6.63				

\*Means for short-term period of record 1955.

Station	Precipitation	6-Month Long-term mean	Station	Precipitation	6-Month Long-term mean
<u>NORTH CENTRAL DIVISION</u>					
Babb 6 NE	12.20	13.74	Gildford	8.53	
Big Sandy	8.71	9.45	Goldbutte 7 N	10.56	
Blackleaf	7.63		Harlem	8.15	9.45
Brady Aznoe	7.53		Havre WBO	8.52	9.04
Browning	10.01	10.24	Hays	8.49	
Chester	9.01		Joplin 1 N	9.56	
Chinook	8.68	9.77	Lonesome Lake	7.36	
Choteau	7.63	9.42	Malta	6.13	9.43
Cleveland 5 ENE	9.32		Philipps 1 S	6.21	
Conrad	8.69	9.57	Saco-Nelson Reservoir	5.05	
Cut Bank FAA AP	9.38	8.98	Shonkin 7 S	18.86	
Dunkirk 14 NNE	7.41	8.83	Simpson	7.92	8.47
Fairfield	7.04	9.41	Telegraph Creek	6.46	
Forks 5 NE	5.69		Tiber Dam	7.96	
Fort Assinniboine	8.63	8.85	Turner	8.75	
Fort Benton	10.09	10.41*	Valier	10.22	10.32
Geraldine	10.77				
<u>CENTRAL DIVISION</u>					
Augusta	6.45	9.92	Lincoln 14 NE	9.74	
Austin 1 W	8.90		Lincoln RS	10.39	
Barber	9.68		Martinsdale	10.57	10.43*
Canyon Ferry PH	6.05		Melstone	7.96	8.69
Cascade 5 S	7.70	10.60	Moccasin Ex. Sta.	12.06	10.83
Cascade 20 SSE	7.50		Raynesford	10.16	
Flatwillow 4 ENE	9.51	9.59	Roundup	9.50	8.06
Gibson Dam	10.00	11.94	Roy 8 NE	10.87	
Grass Range	12.16		Stanford 2 NE	9.74	11.52
Grass Range 15 NNE	8.74		Sun River 5 SW	7.04	
Great Falls WBAS	7.14	9.83	Toston 3 SW	6.74	
Harlowton	9.72		Townsend	7.54	
Helena WBAS	5.11	7.70	Unionville	9.80	
Holter Dam	5.52	9.36	White Sulphur Springs	10.11	11.41
Lewistown FAA AP	13.23	12.22	Winifred	9.12	9.35
<u>SOUTH CENTRAL DIVISION</u>					
Ballantine	6.17	8.06	Joliet	8.10	
Big Timber	8.91	9.67	Livingston FAA AP	8.78	9.94*
Billings Water Plant	6.45		Mystic Lake	12.99	15.08
Billings WBAS	6.28	8.80	Nye	12.07	
Bridger	4.03		Nye (Mouat Mine)	15.83	
Columbus	7.61	9.55	Rapelje 4 S	8.92	9.18
Crow Agency	6.14	9.47	Red Lodge	11.07	13.08
Gardiner	8.42		Wilsall	10.92	
Hardin	5.66		Wilsall 8 ENE	14.06	
Huntley Exp. Sta.	6.04	8.07	Wyola	6.88	8.89*
			Yellowstone Park NE	13.78	

\*Means for short-term period of record 1955.



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<u>NORTHEASTERN DIVISION</u>					
Bredette	10.28		Nohly 3 WNW	10.11	
Circle 7 N	5.86	9.61	Opheim 12 SSE	9.59	9.65
Culbertson	12.65	10.53	Poplar	10.26	10.46
Fort Peck PH	7.47		Raymond Border Sta.	13.54	
Glasgow WBAS	6.81	10.07	Redstone	12.13	
Glendive	6.55	10.18	Richey	7.49	
Haxby 18 SW	8.54	10.26	Savage	7.96	10.77
Hinsdale	6.32		Scobey	15.23	
Jordan	6.16	8.04	Sidney	8.26	
Lambert	8.36		Thoeny 3 N	6.31	
Lustre 4 NNW	10.86	9.64	Vida	11.00	11.32
Medicine Lake 3 SE	17.08	10.27	Wolf Point 4 ESE	9.28	

SOUTHEASTERN DIVISION

Albion	10.51		Lame Deer	6.26	
Birney 2 SE	7.14		Mildred	6.87	9.85
Boyes	9.50		Miles City	6.83	9.34
Brandenberg	6.12		Miles City FAA AP	5.83	
Broadus	9.57	10.25*	Moorhead 5 NE	6.49	
Colstrip	6.90	10.60	Plevna	5.51	10.34
Ekalaka	8.50	10.33	Ridgway	8.60	
Forsyth 2 E	5.89		Rock Springs	5.65	
Ingomar 11 NE	7.48		Terry	5.32	
			Wibaux	8.17	

\*Means for short-term period of record through 1955.

